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EXAMINER	
MULLINS, BURTON S	
ART UNIT	PAPER NUMBER
2834	

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/901,193	MORELAND ET AL.	
	Examiner	Art Unit	
	Burton S. Mullins	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 May 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-8* is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment to the claims filed on May 5, 2003 has not been entered because it does not comply with the requirements of 37 CFR 1.121(c) because it is not clear where the respective insertions or deletions should be made. Further, note the new format for amendments given by 37 CFR 1.121(c) which states:

(c) *Claims*. Amendments to a claim must be made by rewriting the entire claim with all changes (*e.g.*, additions and deletions) as indicated in this subsection, except when the claim is being canceled. Each amendment document that includes a change to an existing claim, cancellation of an existing claim or addition of a new claim, must include a complete listing of all claims ever presented, including the text of all pending and withdrawn claims, in the application. The claim listing, including the text of the claims, in the amendment document will serve to replace all prior versions of the claims, in the application. In the claim listing, the status of every claim must be indicated after its claim number by using one of the following identifiers in a parenthetical expression: (Original), (Currently amended), (Canceled), (Withdrawn), (Previously presented), (New), and (Not entered).

(1) *Claim listing*. All of the claims presented in a claim listing shall be presented in ascending numerical order. Consecutive claims having the same status of "canceled" or "not entered" may be aggregated into one statement (*e.g.*, Claims 1-5 (canceled)). The claim listing shall commence on a separate sheet of the amendment document and the sheet(s) that contain the text of any part of the claims shall not contain any other part of the amendment.

(2) *When claim text with markings is required.* All claims being currently amended in an amendment paper shall be presented in the claim listing, indicate a status of "currently amended," and be submitted with markings to indicate the changes that have been made relative to the immediate prior version of the claims. The text of any added subject matter must be shown by underlining the added text. The text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. The text of any deleted subject matter must be shown by being placed within double brackets if strike-through cannot be easily perceived. Only claims having the status of "currently amended," or "withdrawn" if also being amended, shall include markings. If a withdrawn claim is currently amended, its status in the claim listing may be identified as "withdrawn—currently amended."

(3) *When claim text in clean version is required.* The text of all pending claims not being currently amended shall be presented in the claim listing in clean version, *i.e.*, without any markings in the presentation of text. The presentation of a clean version of any claim having the status of "original," "withdrawn" or "previously presented" will constitute an assertion that it has not been changed relative to the immediate prior version, except to omit

markings that may have been present in the immediate prior version of the claims of the status of "withdrawn" or "previously presented." Any claim added by amendment must be indicated with the status of "new" and presented in clean version, *i.e.*, without any underlining.

(4) *When claim text shall not be presented; canceling a claim.*

(i) No claim text shall be presented for any claim in the claim listing with the status of "canceled" or "not entered."

(ii) Cancellation of a claim shall be effected by an instruction to cancel a particular claim number. Identifying the status of a claim in the claim listing as "canceled" will constitute an instruction to cancel the claim.

(5) *Reinstatement of previously canceled claim.* A claim which was previously canceled may be reinstated only by adding the claim as a "new" claim with a new claim number.

2. The claims as originally filed will be considered as currently pending. The following is a list of pending claims for applicant's reference:

1. A method of converting nuclear energy to useable electric power which comprises the steps of

(a) applying radioactive elements to transducers structured as circuit components;

(b) applying oscillating voltages to said transducers; and

(c) collecting electrical energy generated by said transducers.

2. The method of Claim 1, wherein the transducers are alloyed valves.

3. The method of Claim 1, wherein the transducers are capacitors.

4. The method of Claim 1, wherein the transducers are transformers.

5. The method of Claim 1, wherein the transducers are selected from the group comprising controllable semiconductor valves, conductors, capacitors, inductors, transformers, rectifiers, oscillators, and amplifiers.

6. The method of Claim 1 further comprising using an antenna with an Earth ground plane receiving radio waves as a source of oscillating voltages applied to radioactively transformed circuit components.

7. The method of Claim 6, wherein the antenna and Earth ground plane form part of a secondary inductance of a tank circuit with the antenna and Earth ground plane acting as the two capacitor plates of the tank circuit with the air between said antenna and said Earth ground plane being the dielectric of said tank circuit.

8. The method of Claim 1 further comprising utilizing from whatever means available, even in the absence of an external antenna and Earth ground plane, oscillating voltages to stimulate radioactively transformed circuit components.

Oath/Declaration

3. Acknowledgement is made of the new oath filed May 5, 2003. The new oath has been approved.

Specification

4. The substitute specification filed May 5, 2003 has not been entered because it does not conform to 37 CFR 1.125(b) and (c) because applicant failed to provide: 1) a statement that the substitute specification contains no new matter; and 2) a marked-up copy showing the amendments to be made via the substitute specification relative to the specification at the time the substitute specification is filed. Note that additions and deletions to the marked-up copy should be shown in a similar manner as amendments to the claims are shown, i.e., the text of

any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. The text of any deleted subject matter must be shown by being placed within double brackets if strike-through cannot be easily perceived. Applicant's use of brackets and general instructions to "delete all" are not acceptable.

Note that a substitute specification filed under 37 CFR 1.125(a) must only contain subject matter from the original specification and any previously entered amendment under 37 CFR 1.121. If the substitute specification contains additional subject matter not of record, the substitute specification must be filed under 37 CFR 1.125(b) and (c).

Drawings

5. The drawings were received on May 5, 2003. These drawings are approved.

Response to Arguments

6. Applicant's arguments filed May 5, 2003 have been fully considered but they are not wholly persuasive.

Regarding applicant's response to the 112 rejections, first and second paragraphs, some of applicant's arguments are well taken; however certain recitations in the claims still are not adequately supported by the specification, lack enablement, and are vague and indefinite.

Applicant's arguments regarding the 101 rejection are not convincing. A working model is required to overcome this rejection. Applicant provides no evidence to support operability except an assertion that his components emit radioactivity, that Art Bell's antenna

delivers a constant 300 volts, and a rumor about an antenna in Gakona, Alaska. All these assertions are spurious and beside the point.

7. Regarding the 102 rejection over Dehmelt, applicant's arguments are not well taken because it is noted that the features upon which applicant relies (i.e., that Dehmelts device allows current to flow in only one direction, that Dehmelt's diodes produce low radiation energy, etc.) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

8. Regarding the 103 rejection over Logan and Dehmelt, in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to combine Logan with Dehmelt since the latter raises more electrons to be raised from the valence band to the conduction band and thus improve current generation.

9. New rejections over newly cited art are applied below.

10. It is readily apparent from applicant's response that applicant is unfamiliar with patent prosecution procedure. While an inventor may prosecute the application, lack of skill in this field usually acts as a liability in affording the maximum protection for the invention disclosed. Applicant is advised to secure the services of a registered patent attorney or agent to prosecute

the application, since the value of a patent is largely dependent upon skilled preparation and prosecution. The Office cannot aid in selecting an attorney or agent. The fact that applicant's invention is "a difficult, technical subject by any measure" should compel applicant to seek professional assistance, because patent prosecution is itself "a difficult, technical subject by any measure."

11. Applicant is advised of the availability of the publication "Attorneys and Agents Registered to Practice Before the U.S. Patent and Trademark Office." This publication is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Claim Rejections - 35 USC § 112

12. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

13. Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not describe in such a way as to enable one skilled in the art to convert "nuclear energy" to "useable electric power" or how the transducers or circuit components are "stimulated" to "generate" electrical energy. Neither is it clear how energy is "generated" by the transducers. Is a nuclear reaction occurring in the transducers, and if so, what is the nuclear reaction? The invention appears to only be a means of converting electro-

magnetic wave energy (e.g., radio-waves) by means of an antenna array into electrical current using a semiconductor doped with a radioactive substance. While there is extensive discussion regarding radioactive power, the "Detailed Description" portion of the specification merely sets forth a laundry list of what appears to be the preferred embodiment. Radioactively-transformed capacitors are used, but there is no disclosure of semi-conductor valves, transformers, diodes, inductors, etc. as claimed in claims 2 and 4-5. Further, what radioactive elements are used to "transform" the circuit elements? Is UO2 the only possibility? Why or why not? These are only examples of where the description fails to provide sufficient disclosure to enable one to make and use the device.

14. Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In Fig.1, the 1000 mfd capacitor appears to be on the wrong side of the diode bridge and the 100 mgOhm shunt resistor 52 would result in such a high voltage on the capacitor that it would blow up before current could flow through the resistor.

The description of "radioactively-transformed" or "radioactively-influenced" capacitors and transistors (specification, p.27-28) is not clear, since it is not clear how they are transformed.

15. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

16. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, recitation "collecting electrical energy generated by said transducers" is vague and indefinite. How is electrical energy "generated" by the transducers. In claim 7, recitation "...with the antenna and Earth's ground plane acting as the two capacitor plates of the tank circuit..." is indefinite since "the tank circuit" lacks antecedent basis. Also, "Earth's" should be --Earth--. In claim 8, recitation "...utilizing from whatever means available, in the absence of an external antenna and Earth ground plane, oscillating waves and voltages..." is vague and indefinite because this is an omnibus recitation which does not impart any definite structural feature.

Claim Rejections - 35 USC § 101

17. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

18. Claims 1-8 are rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility. It is not clear how using the claimed radioactive-doped transducer in combination with a radio antenna receiving radio signals (whose power averages at best a few microwatts) would operate to collect or generate any useful amount of electricity, much less the 4,700 watts in one minute claimed by applicant (specification, p.23, lines 8-10). Applicant is requested to supply a working model and evidence of such operation. Also, statements such as "Even on still days and nights when the amplifier was not connected to it,

the antenna sometimes produced a tall column of pale blue light...rising to the zenith for miles (kilometers)" (p.24, lines 4-6) do not lend credence to applicant's assertion of operability.

Claim Rejections - 35 USC § 102

19. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

20. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Burke (US 3,530,316). Burke teaches a method of power amplification in a circuit comprising: a method of converting nuclear energy to useable electric power which comprises the steps of: (a) applying radioactive elements to transducers structured as circuit components (electrically conductive container 10, Fig.2; or metal rods 50/70, Figs.3-4); (b) applying oscillating voltages to said transducers (electric current is applied to the rods 70 in either direct or alternating manner, c.3, lines 34-36); and (c) collecting electrical energy generated by said transducers (the current is collected at the ends of the container 10 or rods 50/70, c.3, lines 17-19 & lines 27-30). Regarding claim 5, Burke's coil 20 coupled to container 10 acts as an "inductor".

21. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Burke (US 3,409,820). Burke teaches an electrical power apparatus comprising: a method of converting nuclear energy to useable electric power which comprises the steps of: (a) applying radioactive elements to transducers structured as circuit components (electrically conductive container 10

with radioactive wire coil 12 wrapped thereabout, Fig.2); (b) applying oscillating voltages to said transducers (electric current is applied to the wire in either direct or alternating manner, c.2, lines 38-39); and (c) collecting electrical energy generated by said transducers (amplified current is collected in secondary coil 14, c.2, lines 44-59). Regarding claim 4, the coils 12 and 14 act as primary and secondary coils of a transformer.

22. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Thomas (US 2,876,368). Thomas teaches a nuclear battery comprising: a method of converting nuclear energy to useable electric power which comprises the steps of: (a) applying radioactive elements (materials 10/20) to transducers (condensers 12/13) structured as circuit components (Figs.11-6); (b) applying oscillating voltages to said transducers (electric current is applied to the condensers when switch 15 is periodically closed); and (c) collecting electrical energy generated by said transducers, i.e., in the condensers. Regarding claim 3, the condensers comprise capacitors.

23. Claims 1, 4 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Brown (US 4,835,433). Brown teaches a device for direct conversion of radioactive decay energy to electrical energy comprising the steps of: (a) applying radioactive elements (core 7) to transducers (transformers 15 with primary/secondary windings 9/13; Figs.1&3) structured as circuit components; (b) applying oscillating voltages to said transducers (the LCR circuit produces voltage oscillations; c.3, lines 30-50); and (c) collecting electrical energy generated by said transducers (c.3, lines 35-50).

24. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Ato (US 3,939,366). Ato teaches a device and method of converting radioactive energy to electrical

energy comprising the steps of: (a) applying radioactive elements (radioactive rays, Fig.1) to transducers (converter body 1) structured as circuit components (semi-conductor with electrodes 2/3); (b) applying oscillating voltages to said transducers (applied magnetic field would inherently induce oscillating voltage in semi-conductive converter 1); and (c) collecting electrical energy generated by said transducers (c.3, lines 3-4).

25. Claims 1 and 5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Perrault, "Harnessing Cosmic Energy", pp.7-30. Perrault describes a device conceived by T.H.Moray for converting radioactive energy to electrical energy comprising the steps of: (a) applying radioactive elements (radioactive salt, Fig.1) to transducers structured as circuit components (copper cathodes functioning as semiconductor valves); (b) applying oscillating voltages to said transducers (via tank circuit oscillations); and (c) collecting electrical energy generated by said transducers (via transformer, Fig.1). Regarding claims 6-8, note antenna and tank circuit in Fig.1.

26. Claims 1-5 and 8, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Dehmelt et al. (US 3,257,570). Dehmet teaches a "transducer" comprising a semiconductive P-N junction treated with radioactive rays such as radioactive palladium 107 to raise more electrons to be raised from the valence band to the conduction band (c.2, lines 3-14). Oscillating waves and voltages are applied to the semiconductor in the form of beta radiation bombarding the P-N junction (c.2, lines 38-40). The P-N junction transforms the radiation into voltage at the junction. The P-N junctions of Dehmelt are equivalent to applicant's "semi-conductor valves," "capacitors," "transformers" or "diodes."

Claim Rejections - 35 USC § 103

27. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

28. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al. (US 5,043,739) in view of Dehmelt et al. Logan teaches a high frequency "rectenna" comprising semiconductors such as field emission diodes for collecting and rectifying electromagnetic waves, e.g., micro-waves or waves of higher frequency. Logan does not teach using "radioactively transformed" circuit components. First and second antenna halves comprise semiconductor sections 1 and 3 (Figs.1&2).

Dehmelt teaches a "transducer" comprising a semiconductive P-N junction treated with radioactive rays such as radioactive palladium 107 to raise more electrons to be raised from the valence band to the conduction band (c.2, lines 3-14).

It would have been obvious to modify Logan and provide a semiconductive junction doped with radioactive material per Dehmelt since it would have been desirable to raise more electrons to be raised from the valence band to the conduction band and thus improve current generation.

Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Burton S. Mullins whose telephone number is 571-272-2029. The examiner can normally be reached on Monday-Friday, 9 am to 5 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 571-272-2034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Burton S. Mullins
Primary Examiner
Art Unit 2834

bsm
March 4, 2004